



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,028	08/15/2001	Markku Verkama	P279295	9392

909 7590 05/21/2004

PILLSBURY WINTHROP, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER
----------

IQBAL, KHAWAR

ART UNIT	PAPER NUMBER
----------	--------------

2686

DATE MAILED: 05/21/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/830,028

Applicant(s)

VERKAMA, MARKKU

Examiner

Khawar Iqbal

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2,4-12,14 are rejected under 35 U.S.C. 102(e) as being unpatentable by Mony (6009383).

3. Regarding claim 1 Mony teaches a digital telecommunication system comprising (figs. 1,3,5,6):

a first center (40) configured to enable speech communication between a plurality of terminals (1, 1'), the first center being (49) associated with a calling terminal (1) and including a first transcoder (18) unit (col. 4, lines 14-30);

a second center (40') that is configured to enable speech communication between a plurality of terminals (1,1'), the second centre (40') being associated with a called terminal (1') and including a second transcoder unit (18') (col. 6, lines 14-30),

wherein the first and second transcoder units each include speech codecs (18,18'), the first centre (40) is configured to perform handshaking with the second center (40'), the handshaking including indication of the speech codecs supported by the calling terminal (col. 6, lines 14-30) wherein at least one of the first (40) and second

(40') centres is configured to choose the speech codec used by the calling (1) and called terminals (1') (col. 6, lines 14-35), and wherein at least one of the first (40) and (40') second centres is configured to establish call connections that bypass one or more of the transcoder units or to control the transcoder units to transmit encoded speech between the called and calling terminals without performing speech encoding operations so that speech is encoded (11) and decoded (11') only in the terminals (col. 6, lines 14-30, col. 3, lines 53-60, col. 5, line 58).

Regarding claim 2 Mony teaches wherein the telecommunication system is a mobile communication system (fig. 3) in which the terminals include mobile stations (1,1'), and the telecommunication system further comprises a mobile communication network and at least one of the first (40) and second (40') centres is a mobile switching center (col. 5, lines 28-48).

Regarding claim 4 Mony teaches wherein the handshaking is performed as outband signaling (col. 6, lines 14-35).

Regarding claim 5 Mony teaches wherein the first and second centres are configured to perform the handshaking in association with a routing information inquiry issued in response to a determination that the called terminal is a mobile subscriber (col. 8, line 60-col. 9, line 7).

Regarding claim 6,7 Mony teaches the first center is configured to send the routing information inquiry including information associated with the speed coded supported by the calling terminal (col. 6, lines 14-30, col. 8, line 60-col. 9, line 7, col. 4, lines 39-49).

Regarding claim 8 Mony teaches wherein the first and second centres are configured to perform the handshaking in association with inter-MSC signaling (col. 6, lines 14-30, col. 7, lines 30-52).

Regarding claim 9 Mony teaches the first centre is configured to send a message requesting connection set-up, the message including information indicating, the speech codecs supported by the calling terminal (col. 6, lines 14-30), the second centre is configured to select a speech codec associated with the call connection which both the called and calling terminals are configured to support, and the second centre is configured to send information associated with the codec associated with the call connection, in a reply message to the connection set-up message (col. 6, lines 14-30, col. 7, lines 30-52).

Regarding claims 10,11 Mony teaches wherein, when required, at least one of the first and second centre is configured to notify the associated of the speech codec it has to use as the result of the handshaking (col. 6, lines 14-30, col. 7, lines 30-52).

Regarding claim 12 Mony teaches wherein a pulse code modulated digital link exists between the first and second centres, and the first and second centres are configured to control their respective transcoder units to adapt an encoded speech signal to one or more least significant bits of PCM samples without transcoding (col. 6, lines 14-30, col. 7, lines 30-52).

As to claim 14 it is considered the claim is rejected for the same reason as set forth in claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3,13,15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mony (6009383) and further in view of Valentine et al (6600740).

Regarding claims 3,13,15-17 Mony teaches voice service node serving wireless speech terminal coupled to mobile switching center MSC, speech codec, speech recognizer and bypass unit exchanging messages with remote bypass unit at MSC. For providing a voice service node serving a wireless speech terminal coupled to a mobile switching center comprising a bypass unit, a speech codec and a speech recognizer. Mony does not specifically teach MSC signaling is ISUP, setup is an IAM and ANM message and packet switched link.

In an analogous art, Valentine et al teaches MSC signaling is ISUP, setup is an IAM (IAM message) and ANM message (backwards messages) (col. 6, line 59-col. 7, line 25) and packet switched link (col. 6, line 11-15). Transmitter generates signal identifying the originating encoding algorithm used by the originating codec for encoding an input signal. Processor analyzes encoding artifacts detected in the encoding signal, after processing the encoding algorithm identification signal and applies analysis in conjunction with the encoding algorithm to reconstruct the input

signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Pon et al by specifically adding feature the reply message to the connection set-up message is an ANM, IAM message according to ISUP signaling in order to enhance system performance Improves voice quality by using an encoding algorithm better matching the decoding algorithm and realizes improved voice communication as taught by Valentine et al.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tseng et al (6172974) and Fujita (6215996) teach speech coder decoder in mobile station.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **BANKS-HAROLD, MARSHA**, can be reached at 703-305-4379.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2684 only)**


Application/Control Number: 09/830,028  
Art Unit: 2686

Page 7

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal

  
**CHARLES APPIAH**  
**PRIMARY EXAMINER**